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EXAMINER

O'HARA, BRIAN M

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/559,655
Filing Date: May 12, 2006
Appellant(s): WOLTER, KLAUS

Michael H. Jacobs
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 04/15/2011 appealing from the Office action mailed 09/17/2010.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

46-68

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the

subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

3,771,747	Mednikow	10-1973
3,196,822	Bertin et al.	7-1965

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 46-56, 59, 60, 62-68 are rejected under 35 U.S.C. 102(b) as being anticipated by Mednikow (US Patent 3,771,747 A).

Regarding independent **Claims 46 and 54**, Mednikow discloses an apparatus and method for assisting the landing and/or takeoff of a powered flying object, comprising: at least one, related to a landing and/or a takeoff area, stationary fluid current generator ("blowers" not shown; See Column 2, Line 30), which is designed to provide a fluid current (18) in order to introduce energy into a flying object (See Column 2, Lines 36-67), wherein the fluid current provided has a certain specific density (density of air), and detecting information on the flying object (via radar and electric eyes; See Column 3, Lines 33-34), and a substance supply unit (7) for enriching the provided fluid current (via 7) in response to the detected information (7 also can be manually operated; See Column 3, Line 25) by at least one substance (extinguishing fluids) of

Art Unit: 3644

higher specific density to increase its deceleration effect and/or its acceleration effect (injecting extinguishing fluids into the currents 18 would inherently increase the deceleration effect of currents 18), respectively; and a control device ("interconnected computer", See Column 3 Lines 23-24) configured to detect information on the flying object and configured to cause the substance supply unit to enrich the provided fluid current by the at least one additional substance in response to the detected information.

Regarding **Claims 47-53**, Mednikow discloses assisting the landing and/or takeoff of a powered flying object, wherein: the direction of the fluid current is adjusted depending on the situation (via baffles 16; also See Column 2, Lines 30-36); the value of at least one further physical parameter of the fluid current is adjusted depending on the situation comprising at least one of the following parameters: temperature of the fluid current, velocity ("increase the intensity", See Column 2, Lines 43-58) of the fluid current, homogeneity of the fluid current and laminarity rate of the fluid current; a fire-extinguishing agent (via 7) is introduced into the fluid current provided; the fluid current provided is a wind generated artificially from the existing atmosphere (blowers use atmospheric air); assist the landing of a flying object firstly a fluid current is provided, which is capable of decelerating the flying object, and then a fluid current is provided, which is capable of lowering the flying object from a hovering position onto the landing area (See Column 2, lines 43-67); to assist the takeoff of a flying object firstly a fluid current is provided, which is capable of lifting the flying object from the takeoff area to a hovering position and then a fluid current is provided, which is capable of accelerating the flying object in a desired direction (See Column 3, Lines 4-16).

Art Unit: 3644

Regarding **Claims 55, 56, 59, 60, 62-64** Mednikow discloses the apparatus as described above, wherein; the fluid current provided by the fluid current generator can be adjusted (via 16 and the computer); the fluid current generator is designed so as to vary the value of at least one further physical parameter of the fluid current provided ("direction and intensities", i.e. velocity); a fire extinguishing agent supply unit (7); the at least one fluid current generator comprises at least one blower ("blower" See Column 2, Line 30); the at least one fluid current generator provides wind generated from the existing atmosphere (blowers use atmospheric air); a control device (computer with radar and electronic eyes) for determining the optimum value of at least one parameter of the fluid current being provided (18); and adjusting the direction of the flow (from horizontal to vertical; See Column 2, Lines 30-36).

Regarding **Claims 65-68**, Mednikow discloses a control device for determining (via the computer or manually) based on the detected information (obtained via radar or electronic eyes) whether enriching the provided fluid current is necessary in order to achieve a required deceleration effect or acceleration effect, wherein enriching the provided fluid current in response to the detected information by at least one substance of higher specific density comprises enriching the provided fluid current by at least one substance of higher specific density if determined to be necessary; and the information on the flying object comprises information on at least one of: a speed of the flying object (radar can detect speed).

Claims 57, 58, and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mednikow as applied to claims 54 and 59 above, and further in

Art Unit: 3644

view of Bertin et al. (US Patent 3,196,822 A). Mednikow discloses an apparatus for assisting the takeoff and/or landing of a flying object as discussed above, but does not disclose a heating element for heating up the fluid current provided or a turbofan. Bertin discloses a heat exchanger (20) for use in heating up a fluid current in conjunction with a turbojet (34). At the time of invention, it would have been obvious to a person of ordinary skill in this art to provide a heating element in the landing/takeoff apparatus as disclosed in Mednikow in view of the teaching of Bertin. The motivation for doing so would have been to provide a fluid current that is more suitable for lifting a flying object, similar to a thermal column. Additionally, providing a cooling element for use when the aircraft is landing would also be obvious in view of the heating element of Bertin.

(10) Response to Argument

Rejection of Claims 46-56, 59, 60, and 62-68 under 35 U.S.C. 102(b) as being anticipated by Mednikow (US Patent 3,771,747 A)

Re Claims 46 and 54: On Page 3 Line 16 - Page 5 Line 9 Appellant argues that the Mednikow reference does not expressly or inherently disclose enriching the provided fluid current. In Column 3, Lines 17-44 Mednikow discloses "the inventive combination" which is preferably automatic but can also be operated manually. Mednikow further discloses many elements which are part of the system including: radar transmitters, electric eyes, airstrip lights, and fire extinguishers; all of which are disclosed to be mounted as part of the airstrip system. In the same sentence which lists the radar transmitters, electric eyes, airstrip lights, and fire extinguishers, Mednikow discloses that the system can be substantially fully automatic (See Column 3 Lines 33-

Art Unit: 3644

44). Thus Mednikow infers that all of the elements, including the fire extinguishers, can be substantially fully automatic as part of a control system of the airstrip.

With the above automatic control system in mind, any use of the fire extinguishers to perform the duty of putting out a fire on an aircraft would then inherently enrich the provided fluid current of the blowers. In order for the fire extinguishers to extinguish a fire they must provide a separate substance from the fluid (air) provided by the blowers. Thus the Mednikow reference meets the limitation of “enriching the provided fluid current in response to the detected information by at least one substance of higher specific density to increase its deceleration effect and/or its acceleration effect, respectively.”

On Page 5 Line 10 - Page 6 Line 8 Appellant argues that Mednikow has no support that the fire extinguishers enrich the provided fluid current in response to detected information. As described above, Column 3 Lines 33-44 discloses an entire airstrip system which includes fire extinguishers wherein the entire system can be substantially fully automatic. In order for the fire extinguishers to be substantially fully automatic they must have the ability to detect information (detect fire) and then respond accordingly. In the instance that an aircraft is on fire during take-off or landing while the airstrip is operating, the system must then detect fire and then provide fire extinguishing substances. Because of the placement of the fire extinguishers (7; as shown in Fig. 1), any use of the fire extinguishers during operation of the airstrip would mix with the fluid current of the blowers and thus enrich the provided fluid current. Thus Mednikow

Art Unit: 3644

implicitly discloses enriching the provided fluid current in response to detected information.

On Page 6 Lines 9-22 Appellant argues that Mednikow does not disclose a substance of higher specific density. Keeping in mind the arguments presented above that Mednikow discloses a fully automatic system; in order for the fire extinguishers to perform the duty of extinguishing fire on an aircraft, the fire extinguishers must expel a substance of higher specific density than the air of the fluid current provided by the blowers. The extinguishing substance must be of higher specific density because the extinguishing substance must be able to move through the fluid current provided by the blowers and reach the aircraft which is on fire. If a substance of lower specific density than the current provided by the blowers was provided by the fire extinguishers then fire extinguishing substance would simply be entrained by the current provided by the blowers and never reach the aircraft. For instance, if large amounts of helium were provided by the fire extinguishers in an attempt to put out a fire on the aircraft, the helium would just be entrained by the air current (and float upward) and never reach the aircraft.

Re Claims 65 and 67: On Page 7 Lines 7-12 Appellant argues that Mednikow does not disclose any determination of whether enriching the air current provided by the blowers is needed to achieve a required acceleration or deceleration effect. Upon determining if the aircraft is on fire or not and providing an extinguishing substance of higher specific density, a required acceleration or deceleration effect would inherently be achieved. Since the system is fully automatic, upon providing the extinguishing

Art Unit: 3644

substance the system would still adjust the blowers and baffles to keep the aircraft in the required acceleration or deceleration effect. Thus the required acceleration or deceleration effect is always being met, both when the extinguishing substance is present and when it is not. As such, the rejection of claims 46 and 54 meets the limitations in Claims 65 and 67 since the system is controlling the acceleration or deceleration effect.

Re Claims 66 and 68: On Page 7 Lines 13-20 Appellant argues that Mednikow and the final rejection do not teach the detection of speed, height, weight, or shape information of the flying object. Since the system of Mednikow is disclosed to be substantially fully automatic and the fire extinguishers need to deliver fire extinguishing substance to an aircraft on fire, the system needs to supply the fire extinguishing substance when the aircraft is in range. Mednikow implicitly discloses the fire extinguishers being turned on at least based on the location (height) of the aircraft in order for the extinguishers to perform the duty of putting out a fire. Furthermore, it is noted, Mednikow discloses the use of an electronic eye with the FULL AUTOMATIC system as set forth above. Thus, since the full system is tied in together, the use of the eye would provide at least information on the height or shape of the object.

Claims 47-53, 55, 56, 59, 60, and 62-64 are held as being rejected as set forth above.

Rejection of Claims 57, 58, and 61 under 35 U.S.C. 103(a) as being unpatentable over Mednikow (US Patent 3,771,747 A) in view of Bertin et al. (US Patent 3,196,822 A)

Re Claim 58: On Page 8 Lines 1-12 Appellant argues that the Bertin reference does not render obvious or disclose a cooling element and further argues that the purpose of the heat exchanger in Bertin “is to reduce the relative humidity of a gas” which “cannot be achieved by cooling an airstream.” This is not found persuasive since it is well known in the art that dehumidifiers work by drawing air over a refrigerated surface and then pooling the extracted water in a tray or bucket. Thus the use of a cooling element is rendered obvious by the use of a dehumidifier which reduces the relative humidity of a gas.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner’s answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/B. M. O./

Examiner, Art Unit 3644

/JOSHUA J MICHENER/

Primary Examiner, Art Unit 3644

Art Unit: 3644

Conferees:

Joshua Michener /JJM/

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